

PICTURES WORTH 1,000 WORDS



When *Retina Today* launched in 2006, the technological talk of the town was the clinical utility of OCT.¹ The imaging modality was practically in its infancy, with only 10 years of commercial use under its belt.^{1,2} At the time, only one device was well-known—the Stratus OCT from Carl Zeiss Meditec—and others were just becoming available.

The very first article *Retina Today* published on OCT touted a new ultrahigh-resolution version capable of acquisition rates of 16,000 axial scans per second with a resolution of 1 μm to 2 μm .¹ That, of course, was compared with the 10- μm resolution of the current (circa 2006) commercial OCT devices.¹ Even with that performance, researchers were discovering all sorts of new insights into the pathology and pathophysiology of Stargardt disease, retinitis pigmentosa, macular holes, lamellar holes, AMD, central serous chorioretinopathy, rhegmatogenous retinal detachment, and white dot syndrome, to name a few.

Today's OCT models are a far cry beyond those earlier iterations, boasting acquisition rates as high as 100,000 A-scans per second while maintaining similar resolution with digital imaging.³ Added to that, we are using the technology in ways we never thought possible nearly 15 years ago.

In this issue, you will read about how surgeons are able to overlay OCT imaging during vitreoretinal surgery to aid in their clinical decision-making—affecting care more than 40% of the time. Another feature article highlights a new OCT model that can reach the far retinal periphery and integrates ultra-widefield fundus imaging, swept-source OCT, fundus autofluorescence, fluorescein angiography, and indocyanine

green angiography. You will also find articles on the utility of enhanced depth imaging OCT for detecting buried drusen and of OCT angiography (OCTA), which provides extraordinary views of the retinal and choroidal vasculature.

But OCT isn't the only tool giving us unprecedented access to the eye today. That's why this April issue, in which we usually concentrate on imaging, now encompasses other technological advances in visualization and telemedicine. This issue's authors discuss how surgeons can get the most out of their 3D vitreoretinal surgery system and how an artificial intelligence-based telemedicine platform may one day revolutionize screening for referable AMD.

Beyond the feature articles, you will learn about the benefits of ocular endoscopy when there is a limited view of the posterior segment and how multimodal and OCTA imaging can help uncover paracentral acute middle maculopathy. And you can't talk about imaging without mentioning our Visually Speaking column, this month showcasing stunning images of a patient with Coats disease treated with core vitrectomy and endolaser photocoagulation.

When it comes to ocular imaging, the old adage, “a picture is worth a thousand words,” rings truer every day, with new tools providing unparalleled views of the posterior segment, even down to the cellular level. ■

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1. Duker SJ. Advances in OCT improve understanding of disease states. *Retina Today*. 2006;1(1).

2. Sull AC, Vuong LN, Srinivasan VJ, et al. The evolution of spectral-domain optical coherence tomography. *Retina Today*. 2008;2(3):39-44.

3. Topcon. Topcon Triton. topconhealthcare.com/us/products/triton. Accessed March 4, 2021.

On the Cover

David Sarraf, MD, and colleagues used OCTA to track nonexudative MNV that remained fluid-free after 4 years of monitoring but grew larger in area (Left). With the use of peripheral OCT, Netan Choudhry, MD, FRCS, discovered a retinal hole in the periphery, leading to prompt treatment before macular hole surgery (Middle). On enhanced depth imaging spectral-domain OCT of an optic disc, optic disc drusen usually have a hyporeflective core and hyperreflective margin, according to Meera S. Ramakrishnan, MD (Right).

